

METHOD FOR MANUFACTURING A STRUCTURE COMPRISING A PLURALITY OF BURIED CAVITIES

ABSTRACT

The present invention relates to a method for the manufacture of a structure comprising a plurality of cavities confined between a thin layer and a support substrate, the method comprising the following steps:

- a) provision of a donor substrate and of a support substrate;
- b) implantation of first light species into the donor substrate in order to form a uniform buried weakened plane delineating, with the front face of the donor substrate, the thin layer that is to be transferred;
- c) localized implantation of second species into the donor substrate so as to introduce said species into the uniform buried weakened plane only in second zones, so as to form a functional buried weakened plane exhibiting: first zones containing the first light species and not the second species, and second zones containing the first light species and the second species;
- d) formation of a plurality of cavities opening onto a front face of the donor substrate or of the support substrate;
- e) assembly, by direct bonding, of the donor substrate onto the support substrate along their respective front faces so as to form a bonded structure in which the cavities are plumb with either the first zones or the second zones of the functional buried weakened plane;
- f) application of a heat treatment to the bonded structure so as to bring about spontaneous separation along the functional buried weakened plane and form, on the one hand, the structure and, on the other hand, the rest of the donor substrate.

No figure